IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PADE In re Application of: LYSANDER LIM ET AL.

Filed:

**FEBRUARY 13, 2002** 

For:

APPARATUS AND METHODS FOR GENERATING RADIO

FREQUENCIES IN COMMUNICATION CIRCUITRY

RECEIVED

Serial No.:

10/075,098

DEC 2 6 2002

Group Art Unit:

2685

**Technology Center 2600** 

Examiner:

**UNKNOWN** 

Atty Dkt:

SILA:075

Pursuant to 37 C.F.R. 1.8, I certify that this correspondence is being deposited with the U.S. Postal Service in a first class, postage prepaid envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on the date below:

Name

INFORMATION DISCLOSURE STATEMENT

**Assistant Commissioner for Patents** Washington, D.C. 20231

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97, and 1.98, it is respectfully requested that this Information Disclosure Statement be entered and the document(s) listed on attached Form PTO-1449 be considered by the Examiner and made of record.

In accordance with 37 °C.F.R §§ 1.97(g),(h), this Information Disclosure Statement is not to be construed as a representation that a search has been made, and is not to be construed to be an admission that the information cited is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

The present Information Disclosure Statement is being filed prior to the receipt of a first Official Action reflecting an examination on the merits, and hence is believed to be timely filed in

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accordance with 37 C.F.R. § 1.97(b). No fees are believed to be due in connection with the filing of this Information Disclosure Statement, however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any reason relating to these materials, the Commissioner is hereby authorized to deduct said fees from Deposit Account No. 10-1205/SILA:075.

Per 37 CFR 1.98(d), no copies of references A1-A48, B1-B6, C1-90 and C101 have been provided, as copies of these references have been previously submitted to the Office in one or more of co-pending U.S. Patent Application Serial Nos. 09/821,340 filed on March 29, 2001, which is entitled "Digital Interface In Radio-Frequency Apparatus And Associated Methods" and 09/821,342 filed on March 29, 2001, which is entitled "Partitioned Radio-Frequency Apparatus And Associated Methods" and which is relied upon by the present application for an earlier effective filing date under 35 U.S.C. Section 120.

A copy of the listed document(s) required by 37 C.F.R. § 1.98(a)(2) are enclosed for the convenience of the Examiner.

Applicant respectfully requests that the listed document(s) be made of record in the present case.

Respectfully submitted,

Maximilian R. Peterson

Reg. No. 46,469

Attorney for Applicant

O'KEEFE, EGAN & PETERMAN, LLP 1101 Capital of Texas Highway South Building C, Suite 200 Austin, Texas 78746 (512) 347-1611 FAX: (512) 347-1615

**Enclosures** 

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List of Patents and Publications for Applicant's

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#### **U.S. Patent Documents**

Exam. Init.	Ref. Des.	Document Number	Date	Name	Class	Sub Class	Filing Date if App.
	A1	5,828,955	10/27/98	Lipowski et al.			8/30/95
	A2	6,035,186	3/7/00	Moore et al.			3/11/97
	A3	6,075,979	6/13/00	Holtvoeth et al.			3/5/97
	A4	5,764,171	6/9/98	Stikvoort			4/2/96
	A5	6,148,048	11/14/00	Kerth et al.			9/26/97
	A6	4,713,563	12/15/87	Marshall et al.			5/12/86
	A7	4,070,632	1/24/78	Tuttle			9/22/76
	A8	4,236,252	11/25/80	Kominami et al.			2/6/79
	A9	4,680,588	7/14/87	Cantwell			12/5/85
	A10	4,857,928	8/15/89	Gailus et al.			1/28/88
	A11	4,989,074	1/29/91	Matsumoto			9/21/89
	A12	5,050,192	9/17/91	Nawata			11/21/90
	A13	5,083,304	1/21/92	Cahill			9/28/90
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	A15	5,194,826	3/16/93	Huusko			4/12/91
	A16	5,235,410	8/10/93	Hurley			7/10/91
	A17	5,267,272	11/30/93	Cai et al.			2/14/91
	A18	5,283,578	2/1/94	Ribner et al.			11/16/92
	A19	5,345,406	9/6/94	Williams			8/25/92
	A20	5,430,890	7/4/95	Vogt et al.			11/20/92
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	A24	5,557,642	9/17/96	Williams			11/14/94
	A25	5,712,628	1/27/98	Phillips et al.			8/31/95
	A26	5,742,189	4/21/98	Yoshida et al.			9/14/95
	A27	5,862,465	1/19/99	Ou			12/30/96
	A28	5,973,601	10/26/99	Campana			12/2/97
	A29	5,758,276	5/26/98	Shirakawa et al.			5/31/96
	A30	5,740,524	4/14/98	Pace et al.			12/14/95
-	A31	4,623,926	11/18/86	Sakamoto			11/9/836
	A32	5,341,135	8/23/94	Pearce			4/30/92
	A33	5,241,310	8/31/93	Tiemann			3/2/92
*	A34	4,562,591	12/31/85	Stikvoort			2/2/84
	A35	5,243,345	2/21/92	Naus et al.			2/21/92
	A36	5,469,475	11/21/95	Voorman			5/31/91
	A37	4,912,729	3/27/90	Van Rens et al.			12/15/88
	A38	4,627,021	12/2/86	Persoon et al.			3/13/84
	A39	4,692,737	9/8/87	Stikvoort et al.			10/17/86
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	A49	6,388,536	5/14/02	Welland			6/27/00
	A50	6,147,567	11/14/02	Welland et al.			5/29/98
	A51	6,327,463	12/4/01	Welland			5/29/98
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	A53	6,304,146	10/16/01	Welland			5/29/98
	A54	6,308,055	10/23/01	Welland et al.			5/29/98
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	A57	6,137,372	10/24/00	Welland			5/29/98
	A58	6,226,506	5/1/01	Welland et al.			5/29/98
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	A60	4,179,670	12/18/79	Kingsbury			1/27/78
	A61	4,204,174	5/20/80	King			11/9/78
	A62	4,686,488	8/11/87	Attenborough			1/31/86
<u> </u>	A63	4,758,802	7/19/88	Jackson			2/21/86
	A64	5,055,802	10/8/91	Hietala et al.			4/30/90
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~	A71	5,539,359	7/23/96	Goma			3/29/95
	A72	5,576,667	11/19/96	Goma	· ·		11/21/95
	A73	5,581,584	12/3/96	Inoue et al.			7/20/94
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	A79	4,888,564	12/19/89	Ishigaki			11/2/88
	A80	5,315,269	5/24/94	Fujii			7/31/92
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	A83	5,648,744	7/15/97	Prakash et al.			12/22/95
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•	A86	5,852,384	12/22/98	Sakakura et al.			4/18/97
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	A89	5,157,358	10/20/92	Benson			11/20/91
_	A90	4,205,272	5/27/80	Kumagai			4/13/78
	A91	4,980,653	12/25/90	Shepherd			9/5/89
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	A97	4,893,087	1/9/90	Davis			1/7/88
	A98	4,905,306	2/27/90	Anderson,			2/26/88
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	A100	4,998,077	3/5/91	Nanni et al.			12/20/89
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/	A107	5,644,270	7/1/97	Moyer et al.			3/15/96
	A108	5,691,669	11/25/97	Tsai et al.			1/11/96
н	A109	5,748,043	5/5/98	Koslov			5/3/94
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	A111	5,844,868	12/1/98	Takahashi et al.			3/26/97
· · · · · ·	A112	5,867,069	2/2/99	Kiser .			6/9/98
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	A114	5,963,100	10/5/99	Tolson et al.			2/24/98
	A115	5,705,955	1/6/98	Freeburg et al.			12/21/95

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	A116	4,926,140	5/15/90	Schenberg			7/19/89
	A117	5,038,117	8/6/91	Miller			9/7/90
	A118	5,258,720	11/2/93	Tanis et al.	-		3/2/84
	A119	5,258,724	11/2/93	Tanis et al.	_		12/30/83
	A120	5,661,269	8/26/97	Fukuzaki et al.			3/17/95
	A121	5,561,398	10/1/96	Rasmussen			5/16/95
	A122	5,619,148	4/8/97	Guo			10/10/95
	A123	6,016,332	1/18/00	Smith et al.			12/19/97
	A124	6,208,488	2/22/00	Landman et al.			10/30/97
	A125	6,130,577	10/10/00	Tamba et al.			6/11/96
	A126	3,983,485	9/28/76	Stuart			2/28/75
	A127	4,888,560	12/19/89	Ogura			7/15/88
	A128	4,255,714	3/10/81	Rosen			2/21/79
	A129	5,006,819	4/9/91	Buchan et al.			5/21/90
	A130	5,418,497	5/23/95	Martin			7/5/94
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	A133	4,057,760	11/8/77	Koch			6/7/76
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	B1	WO 00/22735	4/20/00	Ali			
	B2	GB2233518A	1/9/91	Dedic			
	В3	0643477A2	3/15/95	Hulkko et al.			
	B4	WO 00/11794	3/2/00	Moore et al.			
	B5	WO 00/01074	1/6/00	Van Der Zwan et al.			
	B6	WO 99/22456	5/6/99	Grenabo			10/27/98
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	В8	JP403258103 A	11/18/91	Kitamura et al.			3/8/90
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	B10	JP403070202 A	3/26/91	Araki et al.			8/9/89
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	C1	Stephen Jantzi et al., "Quadrature Bandpass ΔΣ Modulation for Digital Radio," IEEE Journal of Solid-State Circuits, Vol. 32, No. 12, December 1997, pp. 1935-1950.
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	C3	"Analog Devices Delivers World's First Open Market GSM Direct Conversion Radio Chipset," Analog Devices Corporate Information Press Release, http://contentanalog.com/pressrelease/prdisplay/0,1622,102,00.html, September 13, 1999, pp. 1-4.
	C4	Data Sheet, CX74017, "RF Transceiver for Single, Dual, or Tri-Band GSM/GPRS Applications," Conexant, January 2, 2001, pp. 1-16.
	C5	Jacques C. Rudell et al, "A 1.9-GHz Wide-Band IF Double Conversion CMOS Receiver for Cordless Telephone Applications," IEEE Journal of Solid-State Circuits, Vol. 32, No. 12, December 1997, pp. 2071-2088.
	C6	Jan Crols et al., "Low-IF Topologies for High-Performance Analog Front Ends of Fully Integrated Receivers," IEEE Transactions on Circuits and Systems-II: Analog and Digital Signal Processing, Vol. 45, No. 3, March 1998, pp. 269-282.
	C7	Jacques C. Rudell et al., "Recent Developments In High Integration Multi-Standard CMOS Transceiver for Personal Communication Systems," invited paper at the 1998 International Symposium on Low Power Electronics, Monterey, California, 6 pgs.
	C8	Asad Abidi, "CMOS Wireless Transceivers: The New Wave," IEEE Communications Magazine, August 1999, pp. 119-124.
•	C9	Data Sheet, UAA3535HL, "Low Power GSM/DCS/PCS Multi-band Transceiver," Philips Semiconductors, February 17, 2000, pp. 1-24.
	C10	Stephen Jantzi et al., "FP 13.5: A Quadrature Bandpass ΔΣ Modulator for Digital Radio," Digest of Technical Papers, 1997 IEEE International Solid-State Circuits Conference, First Edition, February 1997, pp. 216-217, 460.
	C11	S. A. Jantzi et al., "The Effects of Mismatch In Complex Bandpass $\Delta\Sigma$ Modulators," IEEE, 1996, pp. 227-230.
	C12	Qiuting Huang, "CMOS RF Design-The Low Power Dimension," IEEE 2000 Custom Integrated Circuits Conference, pp. 161-166.
	C13	Paolo Orsatti et al., "A 20-mA-Receive, 55-mA-Transmit, Single-Chip GSM Transceiver in 0.25-µm CMOS," IEEE Journal of Solid-State Circuits, Vol. 34, No. 12, December 1999, pp. 1869-1880.

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	C14	Qiuting Huang et al., "The Impact of Scaling Down to Deep Submicron on CMOS RF Circuits," IEEE Journal of Solid-State Circuits, Vol. 33, No. 7, July 1998, pp. 1023-1036.
-	C15	Behzad Razavi, "Design Considerations for Direct-Conversion Receivers," IEEE Transactions on Circuits and Systems-II: Analog and Digital Signal Processing, Vol. 44, No. 6, June 1997, pp. 428-435.
	C16	Farbod Behbahani et al., "CMOS Mixers and Polyphase Filters for Large Image Rejection," IEEE Journal of Solid-State Circuits, Vol. 36, No. 6, June 2001, pp. 873-887.
	C17	Jan Crols et al., "A Single-Chip 900 MHz CMOS Receiver Front-End With A High Performance Low-IF Topolgy," IEEE Journal of Solid-State Circuits, Vol. 30, No. 12, December 1995, pp. 1483-1492.
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	C19	Analog Devices, AD6523/AD6524, GSM Direct Conversion Radio Chip Set, www.analog.com, 2 pgs.
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